ABSTRACT OF THE DISCLOSURE

An eddy current retarder having a rotor part of the retarder with symmetry of revolution about the axis of the engine shaft so that it has a peripheral face facing a peripheral face of the stator part, the inductor of the retarder having at least one electromagnetic winding. Thus, the Eddy current retarder maintains a compact structure while at the same time allowing simple and easy control over its magnetic flux by virtue of the presence of electromagnets.